Lake Park Lions Bridge
In Lake Park, spanning the two southern ravines surrounding the government lighthouse
Milwaukee
Milwaukee County
Wisconsin

HAER No. WI-19

HAER
WIS,
40-MILWA,
50-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED DRAWINGS

Historic American Engineering Record
National Park Service
U. S. Department of the Interior
P. O. Box 37127
Washington, D. C. 20013-7127

HAER
WIS,
40-MILWA,
50-

HISTORIC AMERICAN ENGINEERING RECORD

Lake Park Lions Bridge

HAER No. WI-19

Location: Twin bridges in Lake Park, spanning the two southern ravines surrounding the government lighthouse, and once formed the southern continuance of Park Avenue (Wahl Avenue) along the bluffs.
Milwaukee, Milwaukee County, Wisconsin

Quad: Milwaukee

Dates of Construction: 1896-1897; both bridges redecked and narrowed in 1966

Designer: Oscar Sanne, engineer

Present Owner: Milwaukee County

Present Use: Pedestrian bridge

Significance: The Lions Bridges formed the major vehicular entrance to Milwaukee's Lake Park. Four pairs of sandstone lions rest at the ends of the stone approach railings, giving the bridges their historic name. Oscar Sanne, a prominent local engineer, designed the bridge and the notable Boston landscape architect Frederick Law Olmsted supplied the design for the park. The bridges' association with the Olmsted office and the early development of the Milwaukee park system give them significance.

Historian: Edwin Cordes
Wisconsin Historic Bridges Project
Summer 1987

HISTORY

The Lions Bridges are two of five decorative bridges located in Lake Park on Milwaukee's northeast eide. All but one were designed between 1893 and 1898 by the local Milwaukee engineer, Oecar Sanne. The bridges span the two southernmost ravines in the park and surround the 1854 government lighthouse. Lake Park was one of Milwaukee's earliest public parks and was designed by the prominent Boston landscape architect Frederick Law Olmsted.

DESCRIPTION

Each of the twin bridges measures 164 feet, including approaches. The eteel arches span ravines 88 feet wide. A grassy knoll, approximately 95 feet wide, separates the two structuree. A government lighthouee, along with the lightkeeper's residence, is located just west of the bridges on the knoll. A large decorative, semicircular plateau extends east of the bridges on the knoll and is surrounded by 18 large stone posts and heavy ornamental chaine. While providing an excellent observation point above the lake front, and a poesible site for a fountain, the posts and chains were also used to prevent an uncontrolled carriage or automobile from falling into the ravine.[1]

The bridge spans were composed of six large steel archee. The two hinged arches were designed to carry live loads of 100 pounde per square foot.[2] Each arch wae connected with 16 decorative cross strute to the other five arches in the span. Guseet platee and cross struts placed at each panel point were eubetituted for lateral or sway rods.[3] A four-inch layer of concrete was placed over I-beame and 1/4-inch buckle platee. The deck was then covered with an additional four inches of Trinadad asphalt. With the deck in place, each bridge was designed to carry a concentrated load produced by a steam roller of 16 tons.[4] The two outermost arches on each span were heavily decorated with bolted cast metal platee. These decorative elements were removed in 1966 when the bridges were narrowed to allow only pedeetrian traffic.

The abutments of the bridges are of local limestone, up to 16 inches thick, cut with a one-inch chieel draft and laid in an ashlar manner. Bedford sandstone wae ueed for the decorative cornice and abutment railings, since it could be obtained for the same price as comparable terra cotta elements.[5] The firm clay ground allowed the footings to be placed directly on it.

The railings over the spans are of steel and cast iron. They were somewhat altered when they were removed for cleaning in 1966. A five-light ornamental lamp originally etood at each inside corner of the stone abutments. The lamps have since been replaced by less ornate replicae. Four pairs of reclining eandstone lions were donated by Henry C. Payne upon completion of the bridge. The lions were placed on stone pedestale at the entrances to the bridges, giving them their nickname. The lione were sculpted by P. Kupper specifically for thie location.[6] Payne wae the manager of The Milwaukee Electric Railway

and Light Company, which had recently built a streetcar depot in the park and provided free Sunday concerts to attract customers.

The bridges originally formed the main entrance to Lake Park and, therefore, Oscar Sanne felt tbeir design required great care and attention. An arched bridge with an open spandrel designed was employed, so as to obstruct the view of the lake as little as possible.[7] The bridges were begun in September of 1896, but difficulties in obtaining proper stone for tbe abutments delayed their completion until October of the following year. The structures connected the southern and northern portions of tbe park and carried traffic from Park Avenue through the park. Total cost of the two bridges was $36,573. The costs were divided evenly between the stone abutments and the steel bridge structures.[8]

The lighthouse located on the plateau between the bridges is one of the earliest extant structures in the city. Two acres surrounding the North Point site were purchased by the U. S. Light House Service in 1851 for $1,000. A $5,000 appropriation was made by Congress in 1854 for construction of a 28-foot tower and lightkeeper's residence. The tower was relocated 100 feet west to its present site in 1879 because erosion of the bluff had made the site unsafe. In 1912, a steel base was placed under the old iron lighthouse, raising its height to 160 feet above the lake level.[9] Acquisition of a narrow strip of land surrounding the lighthouse was necessary to allow for the bridges and complete the park. In 1893, the Park Commissioners, with the help of State Senator John L. Mitchell, persuaded the Federal Government to allow the complstion of Olmsted's plan, as long as the functions of the lighthouse were not disturbed.[10]

Oscar Sanne, the bridges' dssigner, was known primarily for his work as an engineer. He specialized in the design of iron and steel bridges, drawspans, viaducts and buildings. Sanne graduated from the Karlsrieche Polytechnic University of Germany, with a degree in engineering. Examples of his work include large steel spans in Oshkosh, DePere and La Crosse, Wisconsin, as well as the Goldsmith Building in Milwaukee. Mr. Sanne was also involved in tbe design of the structural system for the Machinery Hall at the Chicago World's Fair of 1893.[11] Ths engineer bsgan his Milwaukse practice in 1888 and was listed as a practicing civil engineer in the city directory until 1900. Sanne was said to have been popular in both the building and business circles, and he rsceived numerous commissions from the city and the Park Commission.[12]

LAKE PARK

As tbe public parks movement, under the leadership of such individuals as Andrew Jackson Downing, began to gain support throughout the United States, the need for parks that were available to the masses became evident.[13] Before the 1890s, Milwaukee had numerous private parks whicb were open to the public for a daily fee.[14] Many of these parks were owned by local breweries, wbicb used them as a distribution point for their products.[15] Because of the cost, these parks excluded much of the lower class. During the period of 1870 to

1900, the population of Milwaukee quadrupled from 70,000 to 285,000 people, making the shortage of public recreation areas even more acute.[16]

Precedents, like Hyde Park in London and the new Central Park in New York, were to be imitated in all cities, to give respite to the inhabitants of these unhealthy industrial areas. Milwaukeeans soon became involved in the movement, and the support of social reform-minded Republican candidates in the 1880s eventually led to the establishment of the Milwaukee Park Commission in 1889.[17]

The Park Commission met for the first time in June of that year. Christian Wahl was appointed president of the commission by the mayor and he retained that post for ten years. After the initial sale of over 100,000 dollars worth of bonds, the commission began to acquire land throughout the city and county.[18] Lake Park was one of the first purchases, as the commission felt it important to preserve part of the city's most valuable natural asset, the lake shoreline. During the next ten years, more money was spent on this park than any other in the system. Lake Park was composed of six different plats, one of the largest being Lueddemann's-On-The-Lake, a private amusement garden. Total cost to acquire the lands was $255,175, necessitating the additional sale of revenue bonds. The total size of the park was 123.7 acres.[19]

The person whose singular position was most influential to the park development was the commission president. Christian Wahl's personal interest in the completion of the park was expressed in his personal supervision of tree planting. Wahl, who was born in Bavaria, became a prominent businessman in Chicago, and owned the country's largest glue manufacturing plant. As a member of the Chicago Common Council, he became influential in the city's political scene and was involved in the planning of city parks. Through his work, he was acquainted with Frederick Law Olmsted. Upon his retirement, Wahl moved to Milwaukee and dedicated himself to civic duties.[20]

The commission hired the nationally-renowned landscape architectural office of Frederick Law Olmsted in 1892 to design the new park lands. The firm was paid $12.50 per acre and was under consulting contract for over three years. The Park Commission was offered a liberal price on the firm's work because they were currently working on the landscaping for the Chicago World's Fair.[21] In February of that year, Olmsted, along with his brother John and Charles Eliot, visited Milwaukee to explore the new park lands.[22]

The original Lake Park plan was very modest, with few changes to the present topography. The final plans of 1895 were much more ambitious. Large amounts of fill (40,000 yards of earth) was used to create a meadow where a ravine once stood. An elaborate grade-separated drive was created and promenades were placed to take full advantage of the views from the bluffs.[23] The Olmsted firm identified the bridge sites, but left their design up to Sanne and the Park Commission. More specific guidelines were given for the Greek revival style pavilion, which was designed by the local firm of Ferry and Clas.

After reviewing the lands, Frederick L. Olmsted sent a letter to the Park Commission criticizing its placement of the park so far from the center of the city. "He wrote of the commissioner's responsibility to provide citizens with the opportunities to enjoy rural scenery at locations convenient to the city."[24] The amount of Frederick Olmsted's involvement with the final design has been questioned. The landscape architect's desp involvement with the Chicago project and his frequent bouts with illness suggest that most of the work was overseen by his brother. The majority of the planting design studies ars thought to have been carried out by Warren Manning, a young horticulture expert in the firm. None-the-less, Frederick Olmsted was more than likely consulted regarding the major decisions.[25] The Olmsted office continued its consultation on Lake Park through 1893 and members of the firm visited yearly to record the progress.

Upon completion, the park became one of the city's most popular retreats. The Milwaukee Elsctric Railway and Light Company built a passenger station designed by Howland Russel at the edge of the park, eliminating the problem of access. For the price of a round-trip streetcar ticket, one could enjoy free concerts in the park, sponsored by the Electric Railway Company.[26]

Many of Olmsted's basic philosophies on landscape design are expresssd in the final plans for the park. Undulating meadows fringed with grass, surrounded by groves of trees which preserved the natural undergrowth was important.[27] "Tree species were varied to give interest and tonality to the scene."[28] Quiet places of retreat were found throughout the park. Many paths and roads provided access to the park's best landscape features from many different perspectives. Passive recreation in the form of music concerts was provided for with the construction of a band shell.[29]

WARD 18

Lake Park is contained in the eighteenth ward of the city of Milwaukee. In many rsspscts, this area is much different than the average Milwaukee ward. The average family was headed by either a skilled or a white collar worker. During the period of 1880 to 1910, the area developed much more slowly than the city as a whole. Only one-third of ths ward's inhabitants were foreign born, and the average house and lot size was one-third larger than the city average; therefors, their average cost was also greater.[30] Builders in the area realized that the socioeconomic level of ths residents was much higher than in ths northwest and southwest neighborhoods, and they built homes accordingly. Although the streets were of the same width as the rest of the city, the use of boulevard made them seem grander. The lake and its views, along with access to the new park and the proximity to the northern edge of the central business district, were the primary draws of this area.[31] Overall,.this area is a much more affluent portion of the city than surrounding wards.

The homes closest to the lake were even more grand than those located farther west in the ward. Statistics of the period show that majority of families located along the lake fall into two distinct groups, families with older heads and those without a mortgage. The percentage of homes with a mortgage increases with the distance from the lake.[32] These characteristics suggest a greater accumulation of wealth in the area. Many of the park commissioners, including Christian Wahl, lived near the lake and perhaps this is one of the reasons that so much care was taken in the construction of the park.

The homes surrounding Lake Park, besides being larger, are much more ornate than typical Milwaukee homes. Decorative stone and brick work, porches, stain glass windows and intricate landscaping is common. The architectural significance of the area can be seen in its historic designation. The North Point Historic District, which includes Lake Park, is listed in the National Register of Historic Places.

FOOTNOTES

1 "Annual Report of the Park Commissioners of the City of Milwaukee - 1898" (Milwaukee: Ed. Keogh Printer, 1894), 9.

2 "Ornamental Bridges for Lake Park, Milwaukee, Wis.,"Engineering News, Vol. XL, No. 7, August 18, 1898, pp. 98-99. A written account of a paper presented by Oscar Sanne at the July 6, 1898, meeting of the Western Society of Engineers.

3 Ibid.

4 Ibid.

5 Ibid.

6 Shirley du Fresne McArthur, North Point Historic District - Milwaukee (Milwaukee: North Point Historical Society, 1981), p. 82. A publication of research done for the National Register of Historic Places nomination.

7 Ornamental Bridges for Lake Park, Milwaukee, Wis.,"Engineering News, Vol. XL, No. 7, August 18, 1898, p. 89.

8 Ibid.

9 North Point District, p. 87.

10 Park Commissioners' Report - 1893, p. 18.

11 Milwaukee of Today - The Cream City of the Lakes (Milwaukee and Chicago: Phoenix Publishing Company, 1893), p. 185. A short biography of important city residents is included.

12 Ibid.

13 Built in Milwaukee - An Architectural View of the City (Milwaukee: City of Milwaukee Department of City Development Publications, 1983), pp. 113-116. An architectural survey of the city, completed by Landscape Research Inc. for the city of Milwaukee mayor's office.

14 Diane M. Buck, "Olmsted's Lake Park," Milwaukee History - a publication of the Milwaukee County Historical Society, Vol. 5, No. 3, Autumn 1982, p. 55.

15 Built in Milwaukee, p. 121.

16 Olmsted's Lake Park, p. 59.

17 Ibid.

18 North Point District, pp. 77-78.

19 Park Commissioners' Report - 1893, p. 17.

20 Olmsted's Lake Park, p. 57.

21 Park Commissioners' Report - 1898, p. 10.

22 Olmsted's Lake Park, pp. 57-58.

23 Built in Milwaukee, p. 121.

24 Park Commissioners' Report - 1895, p. 16.

25 Olmsted's Lake Park, p. 59.

26 Ibid.

27 Ibid., p. 60.

28 Rodger D. Simon, "The City Building Process - Housing and Services in New Milwaukee Neighborhoods 1880-1910: Large Lots and a View - Ward 18," Transactions of the American Philosophical Society - Philadelphia 1978, Vol. 68, Part 5, pp. 45-49.

29 Ibid., p. 51.

30 Ibid., p. 52.

BIBLIOGRAPHY

"Annual Report of the Commissioners of the City of Milwaukee." Milwaukee: Ed. Keogh Printer, 1893-1898.

Buck, Diane M. "Olmsted's Lake Park,"Milwaukee History - a publication of the Milwaukee County Historical Society, Vol. 5, No. 3, Autumn 1982.

Built in Milwaukee - An Architectural View of the City. Milwaukee: City of Milwaukee Department of City Development Publications, 1983. An architectural survey of the city, completed by Landscape Research, Inc., for the city of Milwaukee mayor's office.

McArthur, Shirley du Fresne. North Point Historic District - Milwaukee. Milwaukee: North Point Historical Society, 1981. A publication of research done for the National Register of Historic Places nomination.

Milwaukee of Today - The Cream City of The Lakes. Milwaukee and Chicago: Phoenix Publishing Company, 1893. A short biography of important city residents is included.

"Ornamental Bridges for Lake Park, Milwaukee, Wis." Engineering News. Vol. XL, No. 7, August 18, 1898, pp. 98-99. A written account of a paper presented by Oscar Sanne at the July 6, 1898, meeting of the Western Society of Engineers.

Simon, Rodger D. "The City Building Process - Housing and Services in New Milwaukee Neighborhoods 1880-1910: Large Lots and a View - Ward 18." Transactions of the American Philosophical Society - Philadelphia 1978, Vol. 68, Part 5.

Original, incomplete drawings of both Olmsted's design for Lake Park and for Oscar Sanne's designs for the bridges can be found in the County Engineer's office, Milwaukee County, and the County Parks Office.